



C3.158:M3-1(71)-10

CURRENT INDUSTRIAL REPORTS

Manufacturers' Shipments, Inventories, and Orders

October 1971

U.S. DEPARTMENT OF COMMERCE / Bureau of the Census



FOR RELEASE: December 1, 1971

SERIES: M3-1(71)-10

SUMMARY

New orders for manufactured products in October at \$57.2 billion decreased \$100 million, virtually no change from \$57.3 billion in September (revised from \$56.9 billion) after seasonal adjustment. Shipments decreased \$500 million or 0.8 percent to \$57.4 billion from \$57.9 billion in September. Unfilled orders decreased \$200 million or 0.2 percent to \$77.2 billion at the end of October. Manufacturers' inventories increased \$300 million to \$100.6 billion at the end of October. The inventories to shipments ratio increased from 1.73 to 1.75.

For the 3 months ending in October, the average change in new orders represents a 0.6 percent decrease compared with a 1.0 percent increase for the 3 months ending in July and a 0.4 percent decrease for the 3 months ending in April.

NEW ORDERS

New orders for durable goods at \$31.2 billion increased \$200 million or 0.6 percent over September. New orders for the machinery industries (electrical and nonelectrical) increased \$400 million to \$10.1 billion and transportation equipment decreased \$200 million to \$7.0 billion. Among the supplementary series, new orders for defense products increased \$500 million to \$2.0 billion and producers' capital goods increased \$400 million to \$6.9 billion.

Chart 1 - Manufacturers' New Orders (Seasonally Adjusted)

Billions of Dollars*

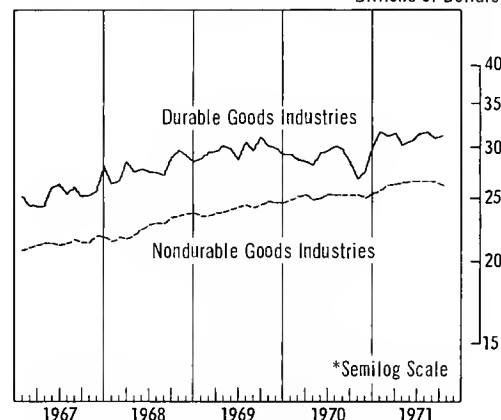
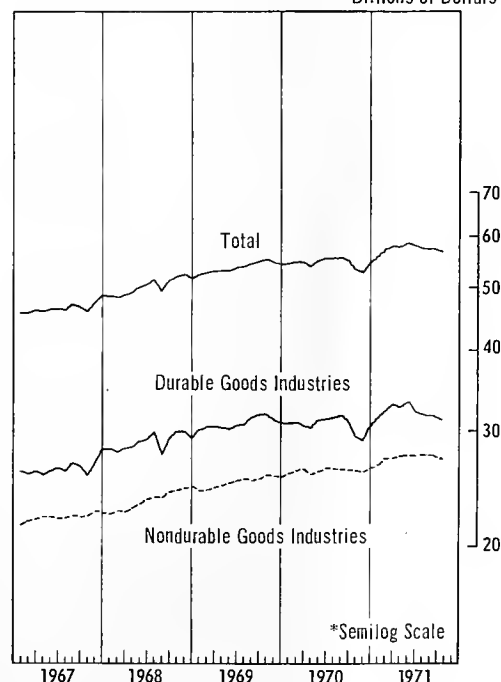


Chart 2 - Manufacturers' Shipments (Seasonally Adjusted)

Billions of Dollars*



SHIPMENTS

Shipments of durable goods decreased \$200 million or 0.6 percent to \$31.3 billion in October. Shipments of transportation equipment decreased \$300 million while primary metals increased \$200 million. Shipments of nondurable goods decreased \$300 million to \$26.1 billion.

UNFILLED ORDERS

Unfilled orders for durable goods decreased \$100 million or 0.2 percent to \$74.2 billion at the end of October. Decreases in unfilled orders of \$300 million in transportation equipment and \$200 million in fabricated metal products were partially offset by a \$400 million increase in the machinery industries (electrical and nonelectrical).

INVENTORIES

Inventories of durable goods decreased \$100 million as nondurable goods increased \$400 million. At the all manufacturing level, materials and supplies decreased \$100 million, work in process increased \$100 million, and finished goods increased \$400 million.

SCHEDULED RELEASE DATES

The figures on the durable goods industries in this report supersede those issued earlier in the advance report on durable goods. The advance report is based on a tabulation of early reports and is limited to statistics on shipments, new orders, and unfilled orders for a few broad industry categories. The present report is based on more complete reporting, but the estimates are also considered preliminary. Final figures will appear as historical data in the report to be published for next month. The advance report on durable goods for November is scheduled for release on December 22, 1971 and the full report is scheduled for release on January 4, 1972.

For an explanation of terms used in this report see appendix following table 5.

Inquiries concerning these figures should be addressed to the U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233.

Chart 3 – Manufacturers' Unfilled Orders (Seasonally Adjusted)

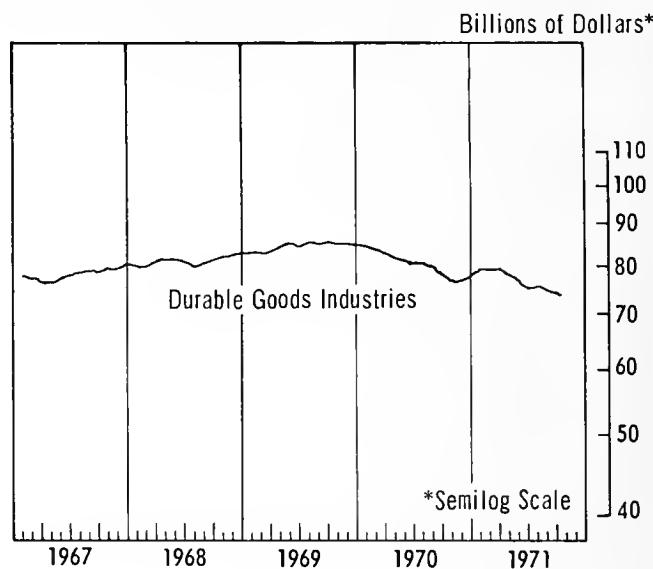


Chart 4 – Total Inventory (Seasonally Adjusted)

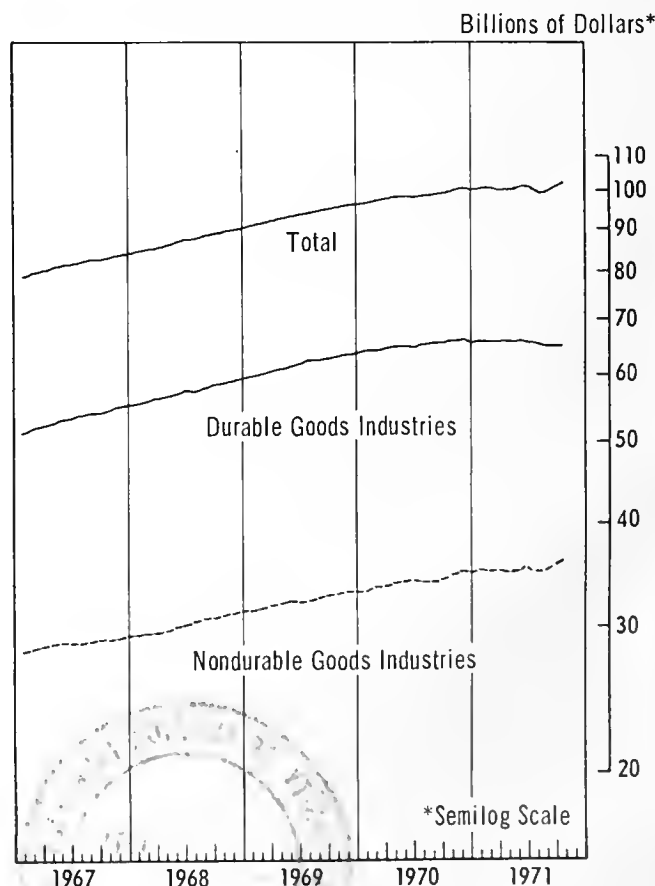


Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment		
	Oct. 1971 ^P	Sept. 1971 ^T	Aug. 1971	Oct. 1971 ^P	Sept. 1971 ^T	Oct. 1970	Oct. 1971 ^P	Sept. 1971 ^T	Aug. 1971	Oct. 1971 ^P	Sept. 1971 ^T	Oct. 1970
Shipments						Total inventories						
All manufacturing industries:												
Total.....	57,402	57,892	57,804	60,093	60,282	55,415	100,579	100,266	100,063	99,791	99,381	99,501
Total, excluding transportation.....	50,127	50,272	49,889	52,178	52,656	49,311	87,032	86,773	86,493	86,151	85,798	85,136
Durable goods industries, total.....	31,348	31,543	31,464	32,807	32,627	29,133	64,490	64,563	64,523	63,963	64,090	64,696
Stone, clay, and glass products.....	1,785	1,758	1,831	1,958	1,925	1,600	2,305	2,293	2,302	2,177	2,198	2,176
Primary metals, total.....	4,459	4,270	3,991	4,469	4,237	4,409	9,257	9,230	8,953	9,263	9,168	9,122
Blast furnaces, steel mills.....	1,896	1,706	1,457	1,792	1,629	1,951	4,875	4,875	4,635	4,933	4,846	4,924
All other primary metals.....	2,563	2,564	2,534	2,677	2,608	2,458	4,382	4,355	4,318	4,330	4,322	4,198
Fabricated metal products, total.....	3,583	3,680	3,679	3,725	3,802	3,599	7,346	7,403	7,519	7,220	7,340	6,821
Metal cans, barrels, and drums.....	352	364	351	341	406	321	723	755	800	696	743	759
Machinery, except electrical, total.....	5,122	5,186	4,983	5,172	5,334	4,539	13,595	13,686	13,745	13,434	13,522	13,804
Engines and turbines.....	318	327	305	298	354	253	967	932	937	972	925	959
Farm machinery and equipment.....	464	484	497	552	515	416	1,030	1,084	1,103	979	1,045	1,096
Construction, mining, and material handling equipment.....	835	858	839	805	878	763	2,651	2,686	2,713	2,593	2,635	2,486
Metalworking machinery.....	378	392	370	372	413	299	1,184	1,200	1,190	1,188	1,191	1,238
General industrial machinery.....	436	416	416	457	439	414	1,146	1,147	1,146	1,121	1,132	1,134
Electrical machinery, total.....	4,550	4,523	4,513	4,743	4,845	4,572	9,820	9,902	9,885	9,718	9,802	10,193
Electrical transmission and distribution equipment and industrial apparatus.....	969	925	892	955	963	851	2,186	2,203	2,209	2,169	2,184	2,157
Household appliances, including radio and TV.....	916	937	962	1,023	1,108	1,015	1,940	1,961	1,953	1,881	1,902	1,991
Communication equipment.....	1,204	1,245	1,231	1,231	1,265	1,312	2,929	2,956	2,921	2,924	2,944	3,140
Transportation equipment, total.....	7,275	7,620	7,915	7,915	7,626	6,104	13,547	13,493	13,570	13,640	13,583	14,365
Motor vehicles and parts.....	4,759	5,153	5,303	5,416	5,188	3,177	3,878	3,854	4,015	3,960	4,012	4,045
Aircraft, missiles, and parts.....	1,839	1,782	1,930	1,854	1,762	2,293	7,424	7,427	7,365	7,451	7,413	8,343
Instruments and related products.....	1,018	989	969	1,078	1,088	1,020	2,400	2,369	2,356	2,381	2,347	2,403
All other durable goods industries.....	3,556	3,517	3,583	3,747	3,770	3,290	6,220	6,187	6,193	6,130	6,130	5,812
Nondurable goods industries, total.....	26,054	26,349	26,340	27,286	27,655	26,282	36,089	35,703	35,540	35,828	35,291	34,805
Food and kindred products, total.....	8,679	8,667	8,683	9,158	9,251	8,814	9,091	8,909	8,818	9,389	8,900	8,876
Meat products.....	1,907	1,927	1,910	2,001	1,952	2,125	818	849	853	817	798	782
Tobacco products.....	512	503	488	501	520	469	2,207	2,185	2,129	2,187	2,107	2,175
Textile mill products.....	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Paper and allied products, total.....	2,179	2,211	2,270	2,279	2,299	2,167	2,772	2,740	2,711	2,734	2,701	2,666
Pulp, paper, etc.....	906	925	965	934	934	910	1,022	1,013	1,014	1,022	998	990
Chemicals and allied products, total.....	4,265	4,459	4,305	4,367	4,673	4,072	6,697	6,691	6,729	6,536	6,572	6,496
Industrial chemicals, except pigments....	1,374	1,451	1,404	1,386	1,486	1,290	1,889	1,878	1,882	1,854	1,854	1,908
Petroleum and coal products.....	2,384	2,308	2,293	2,391	2,347	2,242	2,465	2,459	2,471	2,506	2,479	2,408
Rubber and plastics products, n.e.c.....	1,575	1,637	1,682	1,660	1,649	1,484	2,113	2,064	2,095	2,084	2,035	2,106
All other nondurable goods industries.....	6,460	6,564	6,619	6,930	6,916	7,034	10,744	10,655	10,587	10,392	10,497	10,078
New orders						Unfilled orders						
All manufacturing industries:												
Total.....	57,237	57,322	58,085	59,916	60,019	54,151	77,161	77,325	77,898	77,331	77,513	79,754
Total, excluding transportation.....	50,282	50,192	50,162	52,175	52,671	48,600	53,353	53,197	53,280	53,149	53,158	53,684
Durable goods industries, total.....	31,208	31,026	31,758	32,638	32,432	27,769	74,219	74,362	74,879	74,397	74,568	76,791
Primary metals, total.....	4,518	4,517	4,184	4,594	4,361	4,215	5,672	5,612	5,366	5,297	5,173	5,857
Blast furnaces, steel mills.....	1,958	2,020	1,701	1,910	1,847	1,906	2,945	2,883	2,569	2,632	2,514	2,946
Fabricated metal products.....	3,338	3,520	3,577	3,496	3,694	3,635	10,453	10,698	10,859	10,494	10,724	10,903
Machinery, except electrical, total.....	5,342	5,105	5,072	5,374	5,223	4,383	14,497	14,279	14,360	14,508	14,308	14,430
Engines and turbines.....	432	332	368	404	359	231	5,093	4,979	4,974	5,104	4,999	4,591
Construction, mining, and material handling equipment.....	866	848	910	817	847	775	2,486	2,456	2,466	2,412	2,400	2,503
Metalworking machinery.....	378	406	380	364	414	266	1,075	1,075	1,061	1,073	1,082	1,262
General industrial machinery.....	453	387	437	458	416	383	1,246	1,229	1,258	1,260	1,259	1,114
Electrical machinery, total.....	4,748	4,628	4,584	4,800	5,198	4,210	14,695	14,500	14,393	14,850	14,793	14,443
Electrical transmission and distribution equipment and industrial apparatus.....	1,085	915	943	1,007	901	770	4,087	3,972	3,982	3,984	3,932	3,910
Household appliances, including radio and TV.....	953	920	1,008	1,028	1,099	974	673	638	654	704	699	693
Communication equipment.....	1,205	1,338	1,212	1,262	1,677	1,260	6,031	6,029	5,936	6,326	6,295	5,865
Transportation equipment, total.....	6,955	7,130	7,923	7,741	7,348	5,551	23,808	24,128	24,618	24,182	24,355	26,070
Aircraft, missiles, and parts.....	1,590	1,348	1,985	1,687	1,500	1,525	17,212	17,461	17,895	17,445	17,611	20,002
All other durable goods industries.....	6,307	6,126	6,418	6,633	6,608	5,775	5,094	5,145	5,283	5,066	5,215	5,088
Nondurable goods industries, total.....	26,029	26,296	26,327	27,278	27,587	26,382	2,942	2,963	3,019	2,934	2,945	2,963
Industries with unfilled orders.....	6,871	7,006	7,201	7,330	7,302	7,092	2,942	2,963	3,019	2,934	2,945	2,963
Industries without unfilled orders.....	19,158	19,290	19,126	19,948	20,285	19,290	-	-	-	-	-	-

- Represents zero. ^PPreliminary. ^TRevised.¹Adjusted for trading-day and calendar-month variations.²Beginning with July 1971, the shipments level for this series appears to be high compared with information shown in other textile series. All data for this industry group are, therefore, withheld pending investigation and revision.

Table 2.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, FOR MARKET CATEGORIES AND SUPPLEMENTARY SERIES
(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment		
	Oct. 1971 ^P	Sept. 1971 ^T	Aug. 1971	Oct. 1971 ^P	Sept. 1971 ^T	Oct. 1970	Oct. 1971 ^P	Sept. 1971 ^T	Aug. 1971	Oct. 1971 ^P	Sept. 1971 ^T	Oct. 1970
	Shipments						Total inventories					
All manufacturing industries, total..	57,402	57,892	57,804	60,093	60,282	55,415	100,579	100,266	100,063	99,791	99,381	99,501
Durable goods industries, total.....	31,348	31,543	31,464	32,807	32,627	29,133	64,490	64,563	64,523	63,963	64,090	64,696
Nondurable goods industries, total.....	26,054	26,349	26,340	27,286	27,655	26,282	36,089	35,703	35,540	35,828	35,291	34,805
Industry groups arranged by market categories:												
Home goods and apparel.....	5,220	5,299	5,322	5,707	5,833	5,785	10,949	10,839	10,726	10,560	10,621	10,129
Consumer staples.....	11,310	11,332	11,279	11,966	12,090	11,412	13,813	13,842	13,659	14,038	13,756	13,524
Equipment and defense products, except automotive.....	8,581	8,509	8,484	8,626	8,691	8,244	25,239	25,398	25,372	25,091	25,133	26,069
Automotive equipment.....	5,280	5,733	5,889	5,975	5,788	3,861	5,087	5,028	5,198	5,108	5,137	5,184
Construction materials, supplies, and intermediate products.....	5,177	5,188	5,334	5,528	5,582	4,733	8,283	8,169	8,200	8,055	8,003	7,620
Other materials and supplies and intermediate products.....	21,834	21,831	21,496	22,291	22,298	21,380	37,208	36,990	36,908	36,939	36,731	36,975
Supplementary series: ²												
Household durable goods industries.....	2,356	2,397	2,419	2,621	2,719	2,427	4,964	4,938	4,917	4,823	4,852	4,765
Producers' capital goods industries.....	6,664	6,652	6,435	6,618	6,853	5,787	17,392	17,461	17,501	17,280	17,285	17,321
Defense products industries (old series).	3,475	3,431	3,584	3,492	3,424	4,033	11,256	11,295	11,191	11,265	11,251	12,389
Defense products (new series)*.....	1,795	1,765	2,077	1,798	1,752	2,133	5,469	5,412	5,282	5,486	5,378	6,793
	New orders						Unfilled orders					
All manufacturing industries, total..	57,237	57,322	58,085	59,916	60,019	54,151	77,161	77,325	77,898	77,331	77,513	79,754
Durable goods industries, total.....	31,208	31,026	31,758	32,638	32,432	27,769	74,219	74,362	74,879	74,397	74,568	76,791
Nondurable goods industries, total.....	26,029	26,296	26,327	27,278	27,587	26,382	2,942	2,963	3,019	2,934	2,945	2,963
Industry groups arranged by market categories:												
Home goods and apparel.....	5,260	5,275	5,361	5,673	5,798	5,686	2,188	2,129	2,163	2,224	2,228	1,991
Consumer staples.....	11,331	11,321	11,282	11,998	12,091	11,431						
Equipment and defense products, except automotive.....	8,509	7,974	8,509	8,602	8,601	7,903	42,610	42,594	43,091	43,107	43,089	43,716
Automotive equipment.....	5,369	5,774	5,863	6,019	5,842	3,799						
Construction materials, supplies, and intermediate products.....	5,005	5,006	5,209	5,313	5,438	4,768	10,102	10,274	10,456	10,126	10,341	10,438
Other materials and supplies and intermediate products.....	21,763	21,972	21,861	22,311	22,249	20,564	22,261	22,328	22,188	21,874	21,855	23,609
Supplementary series: ²												
Household durable goods industries.....	2,390	2,379	2,457	2,579	2,688	2,320	1,800	1,769	1,786	1,827	1,868	1,627
Producers' capital goods industries.....	6,864	6,425	6,551	6,829	6,565	5,811	22,958	22,759	22,986	23,055	22,845	22,483
Defense products industries (old series).	3,197	3,018	3,634	3,335	3,525	3,277	23,845	24,122	24,535	24,371	24,527	26,595
Defense products (new series)*.....	1,950	1,467	2,154	2,141	1,786	2,091	19,035	18,880	19,177	19,534	19,192	19,925

*During 1968 manufacturers in ordnance, communications, aircraft and aircraft parts, and shipbuilding industries began to provide aggregate figures on shipments, orders, and total inventories of work performed for the Department of Defense. The results of these reports are included in these new defense series. Since there are no historic data available to develop separate seasonal factors for these reporters, the data have been seasonally adjusted using the factors of these industries. ^PPreliminary. ^TRevised. ¹Shipments and new orders adjusted for trading-day and calendar-month variations; unfilled orders and inventories as of end of month. ²The supplementary series are regroupings of the separate industry categories as follows:

Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; ophthalmic goods, watches, and clocks; and miscellaneous personal goods.

Producers' capital goods (formerly machinery and equipment) industries - Machinery, except electrical excluding farm machinery and equipment and machine shops; electrical machinery excluding household appliances, communication equipment and electronic components; shipbuilding and repairing, and railroad and street car equipment.

Defense products industries (old series) - Based on reports for companies classified in the communication equipment, complete aircraft, aircraft parts, and ordnance industries. (Thus, this series includes significant amounts of nondefense work in these industries and omits defense work performed in the shipbuilding industry.)

Defense products (new series) - Based on separate reports on defense work filed by large defense contractors in the following industries: ordnance, communications, complete aircraft, aircraft parts, and shipbuilding. Thus, it differs from the old series in that it includes defense activity in shipbuilding and excludes nondefense work in ordnance, communications, complete aircraft, and aircraft parts. The data are comparable to those published annually in the MA-175, Shipments of Defense-Oriented Industries, for the specified industries.

Table 3.--MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS MONTH-TO-MONTH AND LONG TERM PERCENT CHANGES

(Based on seasonally adjusted data)

Item and industry group	Month-to-month			Average monthly rates of change				Average, 1965-1970	
	Sept.- Oct. 1971	Aug.- Sept. 1971	July- Aug. 1971	3 months			12 months	Average rise	Average decline
				July- Oct. 1971	Apr.- July 1971	Jan.- Apr. 1971	Oct. 1970- Oct. 1971		
Shipments:									
All manufacturing industries.....	-0.8	+0.2	-1.1	-0.6	+0.4	+1.2	+0.6	+1.1	-1.2
Durable goods industries, total.....	-0.6	+0.3	-2.1	-0.8	+0.9	+1.3	+0.9	+1.8	-1.8
Nondurable goods industries, total.....	-1.1	0.0	+0.2	-0.3	-0.1	+1.1	+0.3	+1.0	-0.6
Total inventories:									
All manufacturing industries.....	+0.3	+0.2	-0.1	+0.1	-0.1	-0.2	0.0	+0.7	-0.3
New orders:									
All manufacturing industries.....	-0.1	-1.3	-0.3	-0.6	+1.0	-0.4	+0.8	+1.9	-1.4
Durable goods industries, total.....	+0.6	-2.3	-0.6	-0.8	+1.9	-1.5	+1.3	+3.2	-2.3
Nondurable goods industries, total.....	-1.0	-0.1	+0.1	-0.3	-0.1	1.0	+0.3	+1.0	-0.6
Unfilled orders:									
Durable goods industries, total.....	-0.2	-0.7	+0.4	-0.2	-1.5	-0.4	-0.3	+1.1	-0.7

Table 4.--VALUE OF MANUFACTURERS' INVENTORIES, BY STAGE OF FABRICATION, BY INDUSTRY GROUP

(Millions of dollars)

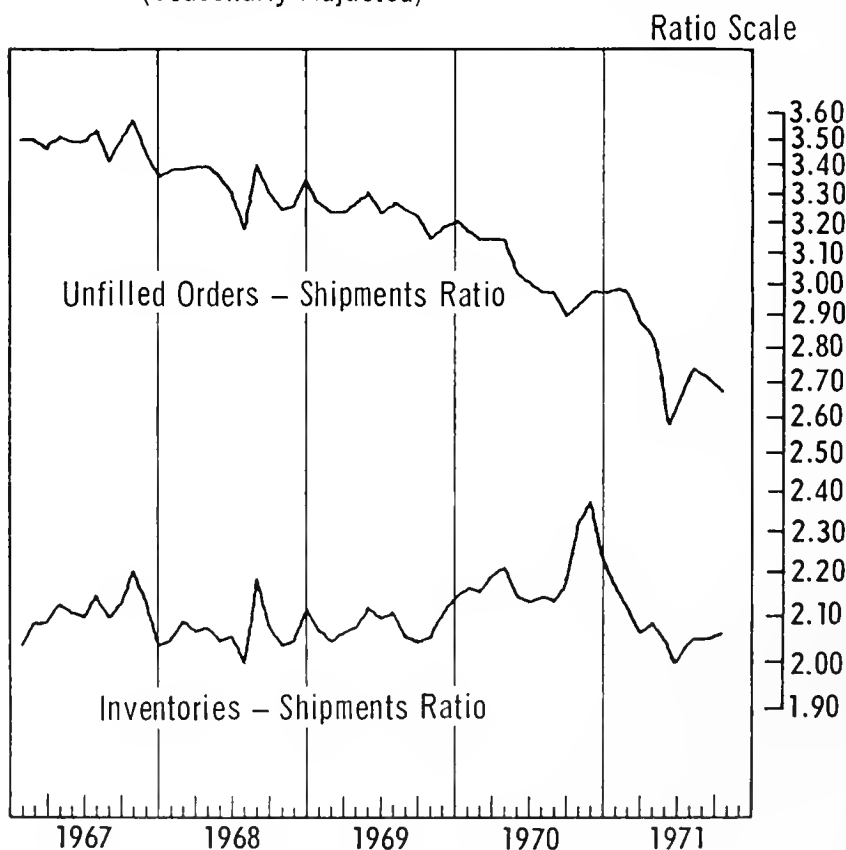
Industry group	Seasonally adjusted			Without seasonal adjustment			Seasonally adjusted			Without seasonal adjustment		
	Oct. 1971 ^P	Sept. 1971 ^P	Aug. 1971	Oct. 1971 ^P	Sept. 1971 ^P	Oct. 1970	Oct. 1971 ^P	Sept. 1971 ^P	Aug. 1971	Oct. 1971 ^P	Sept. 1971 ^P	Oct. 1970
	Total						Materials and supplies					
All manufacturing industries, total..	100,579	100,266	100,063	99,791	99,381	99,501	32,249	32,354	32,736	32,382	32,409	31,717
Durable goods industries, total.....	64,490	64,563	64,523	63,963	64,090	64,696	18,900	19,306	19,709	19,098	19,573	19,067
Stone, clay, and glass products.....	2,305	2,293	2,302	2,177	2,198	2,176	743	755	758	738	754	735
Primary metals.....	9,257	9,230	8,953	9,263	9,168	9,122	3,470	3,519	3,436	3,610	3,627	3,464
Machinery (electrical and nonelectrical).	23,415	23,588	23,630	23,152	23,324	23,997	6,188	6,376	6,496	6,174	6,367	6,252
Transportation equipment.....	13,547	13,493	13,570	13,640	13,583	14,365	2,811	2,814	3,012	2,879	2,931	3,224
All other durable goods industries.....	15,966	15,959	16,068	15,731	15,817	15,036	5,688	5,842	6,007	5,697	5,894	5,392
Nondurable goods industries, total.....	36,089	35,703	35,540	35,828	35,291	34,805	13,349	13,048	13,027	13,284	12,836	12,650
Chemicals and allied products.....	6,697	6,691	6,729	6,536	6,572	6,496	2,328	2,343	2,357	2,308	2,322	2,255
Petroleum and coal products.....	2,465	2,459	2,471	2,506	2,479	2,408	560	567	588	563	563	555
Rubber and plastics products, n.e.c.....	2,113	2,064	2,095	2,084	2,035	2,106	647	622	639	654	636	701
All other nondurable goods industries....	24,814	24,489	24,245	24,702	24,205	23,795	9,814	9,516	9,443	9,759	9,315	9,139
	Work in process						Finished goods					
All manufacturing industries, total..	33,761	33,699	33,322	33,606	33,522	34,602	34,569	34,213	34,005	33,803	33,450	33,182
Durable goods industries, total.....	28,673	28,532	28,214	28,557	28,369	29,515	16,917	16,725	16,600	16,308	16,148	16,114
Stone, clay, and glass products.....	297	304	309	273	285	294	1,265	1,234	1,235	1,166	1,159	1,147
Primary metals.....	3,101	3,112	3,024	3,061	3,052	3,109	2,686	2,599	2,493	2,592	2,489	2,549
Machinery (electrical and nonelectrical).	10,589	10,602	10,555	10,530	10,520	11,277	6,638	6,610	6,579	6,448	6,437	6,468
Transportation equipment.....	9,348	9,290	9,158	9,388	9,311	9,708	1,388	1,389	1,400	1,373	1,341	1,433
All other durable goods industries.....	5,338	5,224	5,168	5,305	5,201	5,127	4,940	4,893	4,893	4,729	4,722	4,517
Nondurable goods industries, total.....	5,083	5,167	5,108	5,049	5,153	5,087	17,652	17,488	17,405	17,495	17,302	17,068
Chemicals and allied products.....	867	879	862	865	878	844	3,502	3,469	3,510	3,363	3,372	3,397
Petroleum and coal products.....	469	466	457	469	469	450	1,436	1,426	1,426	1,474	1,447	1,403
Rubber and plastics products, n.e.c.....	327	320	320	332	328	330	1,139	1,122	1,136	1,098	1,071	1,075
All other nondurable goods industries....	3,425	3,502	3,469	3,383	3,478	3,463	11,575	11,471	11,333	11,560	11,412	11,193

^P Preliminary.^R Revised.

Table 5.--RATIO OF MANUFACTURERS' INVENTORIES TO SHIPMENTS AND UNFILLED ORDERS TO SHIPMENTS, BY INDUSTRY GROUP

(Based on seasonally adjusted data)

Industry group	Inventories - shipments ratio				Unfilled orders - shipments ratio ¹ (months' backlog)			
	Oct. 1971	Sept. 1971 ^P	Aug. 1971	Oct. 1970	Oct. 1971 ^P	Sept. 1971 ^R	Aug. 1971	Oct. 1970
All manufacturing industries, total.....	1.75	1.73	1.73	1.88	2.23	2.24	2.26	2.43
Durable goods industries, total.....	2.06	2.05	2.05	2.32	2.68	2.71	2.74	2.93
Stone, clay, and glass products.....	1.29	1.30	1.26	1.58	(NA)	(NA)	(NA)	(NA)
Primary metals.....	2.08	2.16	2.24	2.05	1.27	1.31	1.34	1.41
Fabricated metals.....	2.05	2.01	2.04	2.00	3.24	3.23	3.26	3.47
Machinery, except electrical.....	2.65	2.64	2.76	3.10	2.83	2.75	2.88	3.20
Electrical machinery.....	2.16	2.19	2.19	2.35	3.23	3.21	3.19	3.27
Transportation equipment.....	1.86	1.77	1.71	2.46	5.74	5.97	5.68	5.90
Instruments and related products.....	2.36	2.40	2.43	2.51	(NA)	(NA)	(NA)	(NA)
Nondurable goods industries, total.....	1.39	1.36	1.35	1.40	0.43	0.42	0.42	0.45
Food and kindred products.....	1.05	1.03	1.02	1.03	(X)	(X)	(X)	(X)
Tobacco products.....	4.31	4.34	4.36	4.58	(X)	(X)	(X)	(X)
Textile mill products.....	(²)	(²)	(²)	(²)	(NA)	(NA)	(NA)	(NA)
Paper and allied products.....	1.27	1.24	1.19	1.31	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products.....	1.57	1.50	1.56	1.67	(X)	(X)	(X)	(X)
Petroleum and coal products.....	1.03	1.07	1.08	1.06	(X)	(X)	(X)	(X)
Rubber and plastics products, n.e.c.....	1.34	1.26	1.25	1.52	(X)	(X)	(X)	(X)

(NA) Not available. ^PPreliminary. ^RRevised. (X) Not applicable.¹Excludes the following industries with no unfilled order: Wooden containers; glass containers; metal cans, barrels and drums; motor vehicle assembly operations; foods and related products; tobacco; apparel and related products; chemicals; petroleum and coal products; and rubber and plastics products, n.e.c.²Beginning with July 1971, the shipments level for this series appears to be high compared with information shown in other textile series. All data for this industry group are, therefore, withheld pending investigation and revision.Chart 5 - Ratio of Manufacturers' Inventories to Shipments
and Unfilled Orders to Shipments, Durable Goods Industries
(Seasonally Adjusted)

Appendix

The following is a description of the survey and definitions used. These are provided to clarify the meaning of the items involved and do not represent any revisions from those definitions previously employed.

DESCRIPTION OF THE SURVEY

The Manufacturers' Shipments, Inventories, and Orders survey provides monthly figures that are comparable to the annual totals published each year in the annual survey of manufactures (ASM). The ASM is based on a sample of approximately 60,000 manufacturing establishments drawn from the 5-year census universe of about 310,000 establishments. In the ASM, each manufacturing establishment provides data on employment, payrolls, shipments, cost of materials, capital expenditures, and inventories as well as other selected items. The establishments do not provide information on unfilled orders or new orders. Since the ASM is establishment based, it provides data for each of the 425 manufacturing industries in the Standard Industrial Classification System (SIC) and area data for industry groups.

The monthly survey M3-1 does not provide information at the complete SIC industry detail because of the smaller size of the reporting panel and the fact that most companies cannot provide shipments, inventories, and orders data monthly for individual establishments.

The monthly reporting panel consists of approximately 5,000 reporting units and includes virtually all companies with 1,000 or more employees and a sample of the smaller ones. The reporting unit typically comprises the entire operations of a company although many of the larger diversified companies file separate divisional type reports for their operations in different industries.

Most of the reporting units include mixed industry activity even within the broad industry categories of the monthly survey. The survey methodology assumes that the month-to-month changes of the reporting units classified in each industry category represent effectively the month-to-month movements of the establishments in the SIC industries which make up the category. Thus, the monthly reports are used to update the ASM estimates by using a link relative of matched companies in each industry.

EXPLANATION OF TERMS

Value of Shipments--Shipments in the monthly survey are equivalent to value of shipments as reported in the ASM which are received or receivable net selling values, f.o.b. plant, after discounts and allowances and excluding freight charges and excise taxes. Included in shipments are the value of all products sold, transferred to other plants of the same company, or shipped on consignment.

Shipments also include receipts of establishments in the industry for contract work performed for others, resales, receipts for miscellaneous activities such as the sale of scrap and refuse; value of installation and repair work performed by employees of the plant; and value of research and development performed at the plant. In the aircraft industry and shipbuilding, the value of work done in a given year varies considerably from the value of shipments because of the long lead time between the input of the materials and labor and the shipments of the completed aircraft or ship. In the annual survey, therefore, the value of work done during the year is requested rather than the value of shipments.

The value of shipments figures developed from the ASM contain duplication at the all manufacturing and industry group levels since the products of some industries are used as materials by other industries within the industry group. With the exception of motor vehicles, it is not significant at the 4-digit SIC group level. Since the M3-1 industry categories typically are groupings of industries, this duplication is significant for the all manufacturing, durable goods and nondurable goods categories and the various market groups. The significance of the duplication within the specific M3-1 industry groups varies depending on the 4-digit industry composition of these groups. It is most pronounced in a few highly integrated industry areas such as primary metals and motor vehicles and parts.

Since most monthly reports are for the entire company or major divisions rather than establishments, the companies are requested to report net sales, i.e., total company billings after discounts and allowances. Companies which file divisional reports are requested to treat transfers from one division of the company to another as if they were net sales to outside customers. Although this

definition of shipments in the monthly reports differs from that used in the annual establishment reports, it is assumed that the month-to-month changes in company sales in the industry are representative of the month-to-month shipments of the establishments in the industry.

Inventories--End-of-month inventories in the monthly survey are identical in definition to the end-of-year inventories in the ASM. In the ASM, respondents are asked to report inventories of individual establishments at approximate current cost if feasible; otherwise, "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the aggregate inventories for establishments in an industry is not precise. The figures on the change in inventories from one period to the next are of greater significance than the actual aggregates.

Inventories are reported by stage of fabrication: (a) finished goods; (b) work in process; and (c) materials, supplies, fuel, and other inventories. In using inventories by stage of fabrication at the all manufacturing and 2-digit industry levels as well as for the durable and non-durable goods sectors, it should be noted that a finished product of one industry may be a raw material for another industry at the next stage of fabrication. Insofar as the durable and nondurable goods sectors and also the 2-digit industry groups contain industries with successive stages of processing, the same type of commodity may be included under different inventory categories in the aggregate statistics.



New Orders Received and Unfilled Orders--

Orders as reported in the monthly survey are net of cancellations during the month. They include orders received during the period and also filled during the period as well as those orders received for future delivery. They also include the net sales value of contract change documents which increase or decrease the sales value of the unfilled orders to which they relate. Orders include only those supported by binding legal documents such as signed contracts, or letter contracts. In case of letter contracts the full amount of the sales value is included if the parties are in substantial agreement on the amount; otherwise, only the funds specifically authorized to be expended are included. The respondent is instructed to deduct the sales value of partial or complete cancellation of existing orders.

Unfilled orders include orders as defined above that have not yet passed through the sales account. Generally, unfilled orders at the end of the reporting period are equal to unfilled orders at the beginning of the period plus net new orders received less net sales.

While both new orders and unfilled orders are used in reviewing individual company reports for consistency, only unfilled orders are estimated directly in the tabulated totals. New orders are derived from the shipments plus net change in unfilled orders for each industry category. This procedure is followed for seasonally adjusted data as well as for the unadjusted data. Shipments and unfilled orders are seasonally adjusted independently. Seasonally adjusted new orders are derived from seasonally adjusted shipments and seasonally adjusted unfilled orders.